

Figure 1a

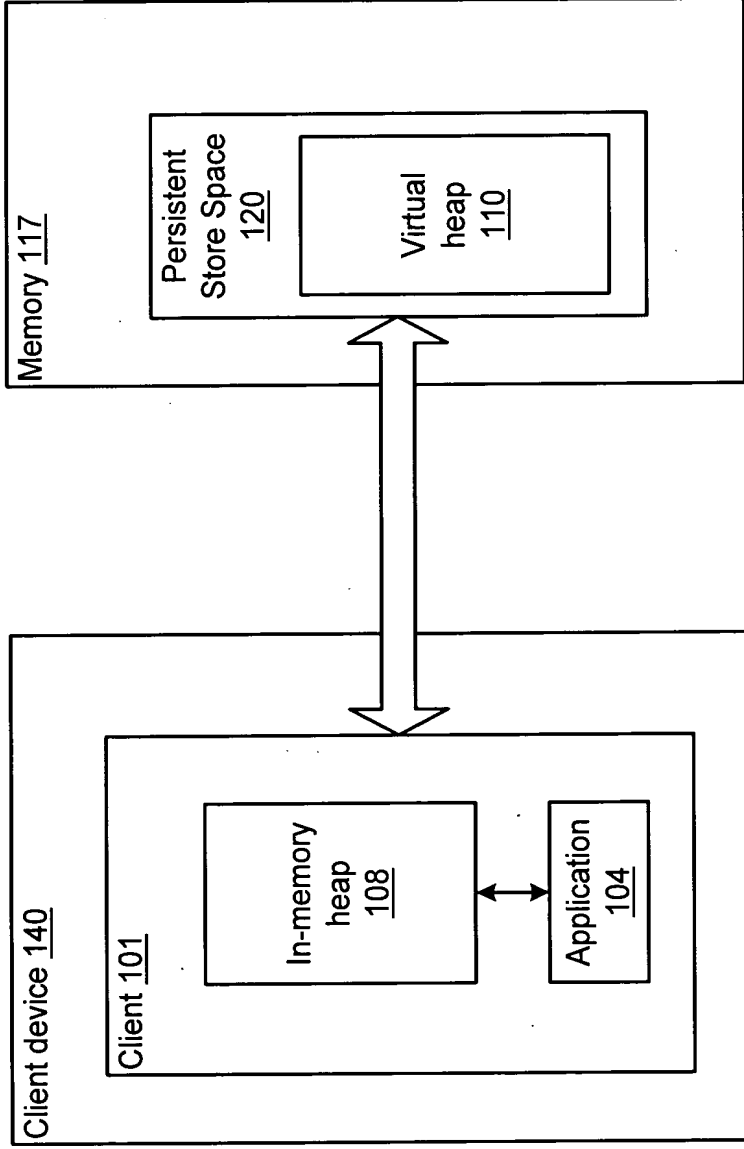


Figure 1b

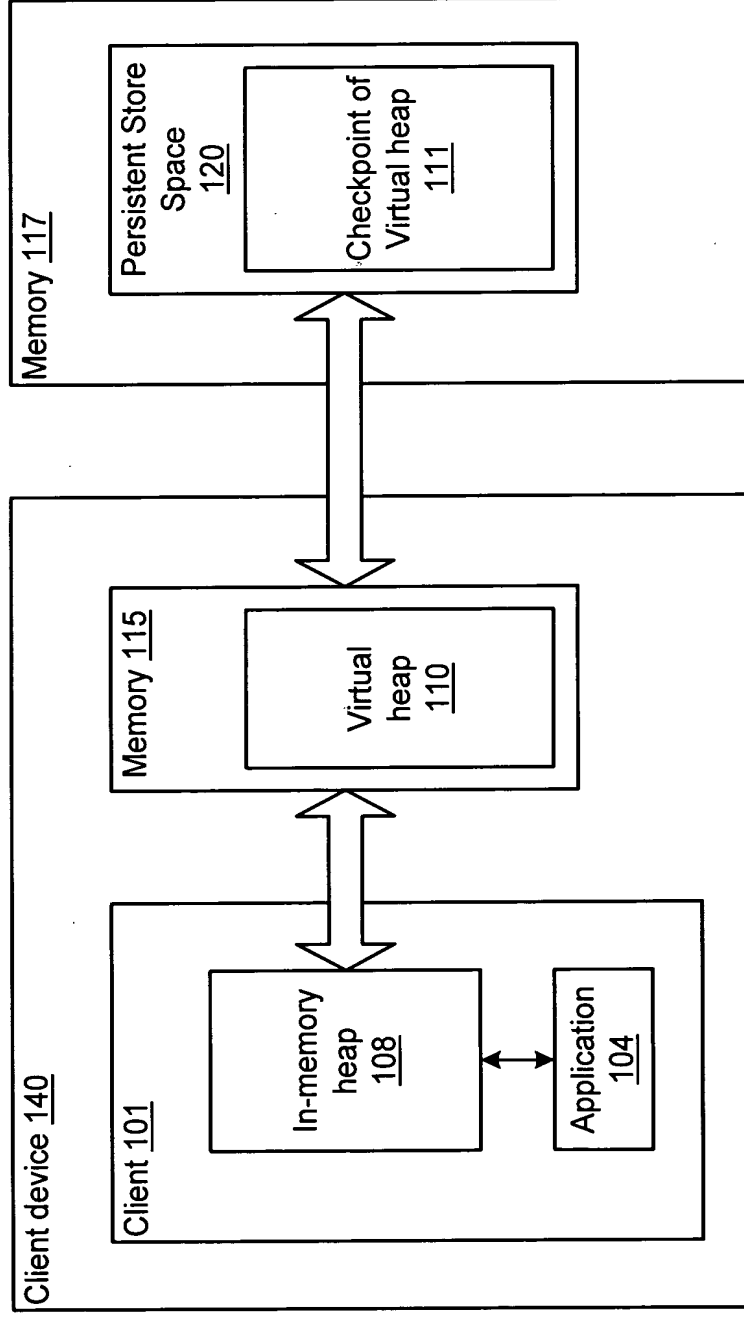


Figure 1c

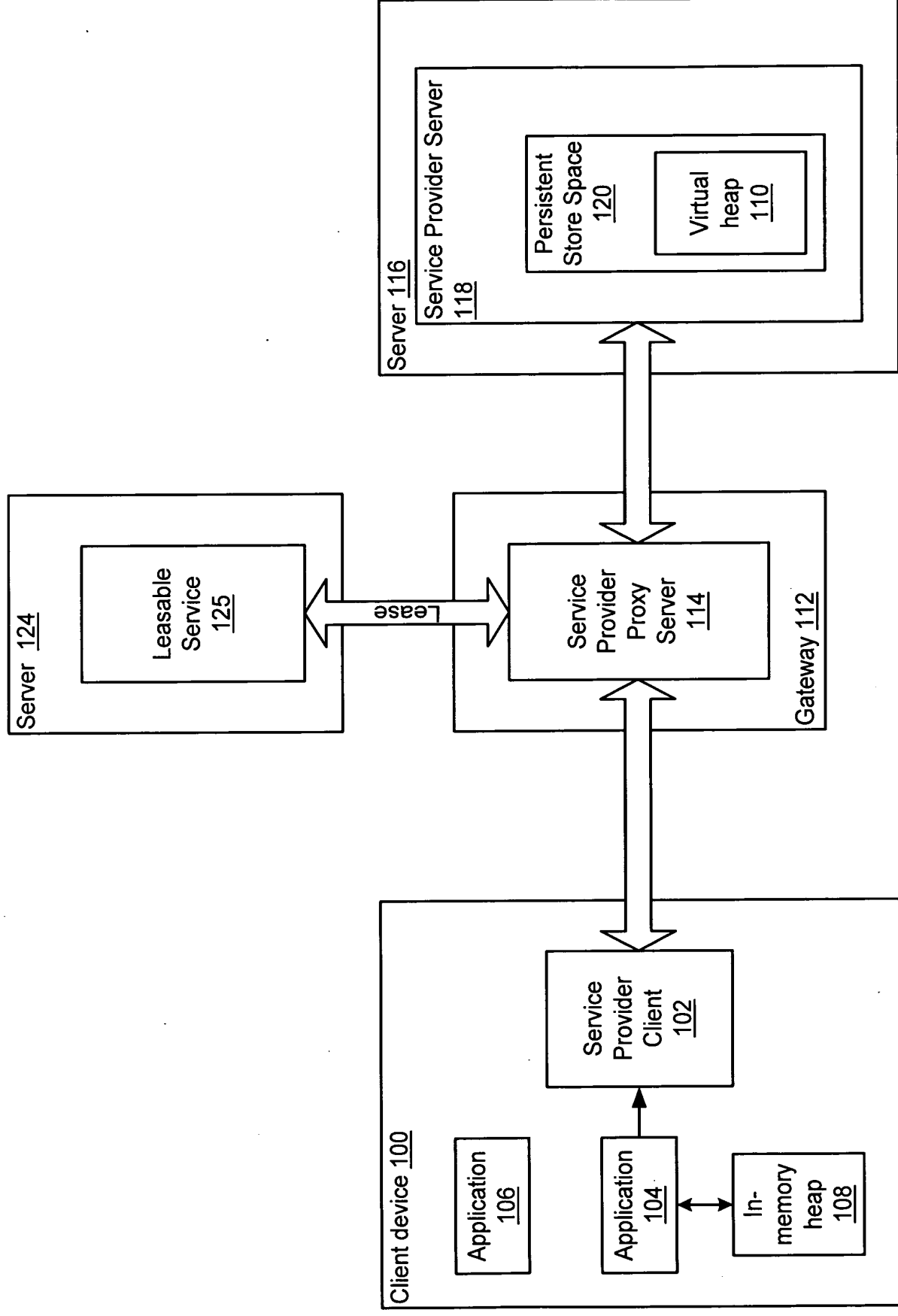


Figure 1d

```
graph TD
    subgraph Virtual_Heap [Virtual Heap 148]
        subgraph App_Code [Application code and data 152]
            Lease_Service[Lease to service 164]
            Lease_Resource[Lease to resource thru system code 156]
        end
        subgraph System_Code [System code and data 154]
            Native_Method[Native method 158]
        end
    end
    Lease_Service --> Local_Service[Local or remote service 166]
    Lease_Resource --> Native_Method
    Native_Method --> Code_Resource[Code for accessing system resource 160]
    subgraph Native_Code [Native code 150]
        Code_Resource
    end
    Code_Resource --> System_Resource[System resource 162]
```

Figure 1e

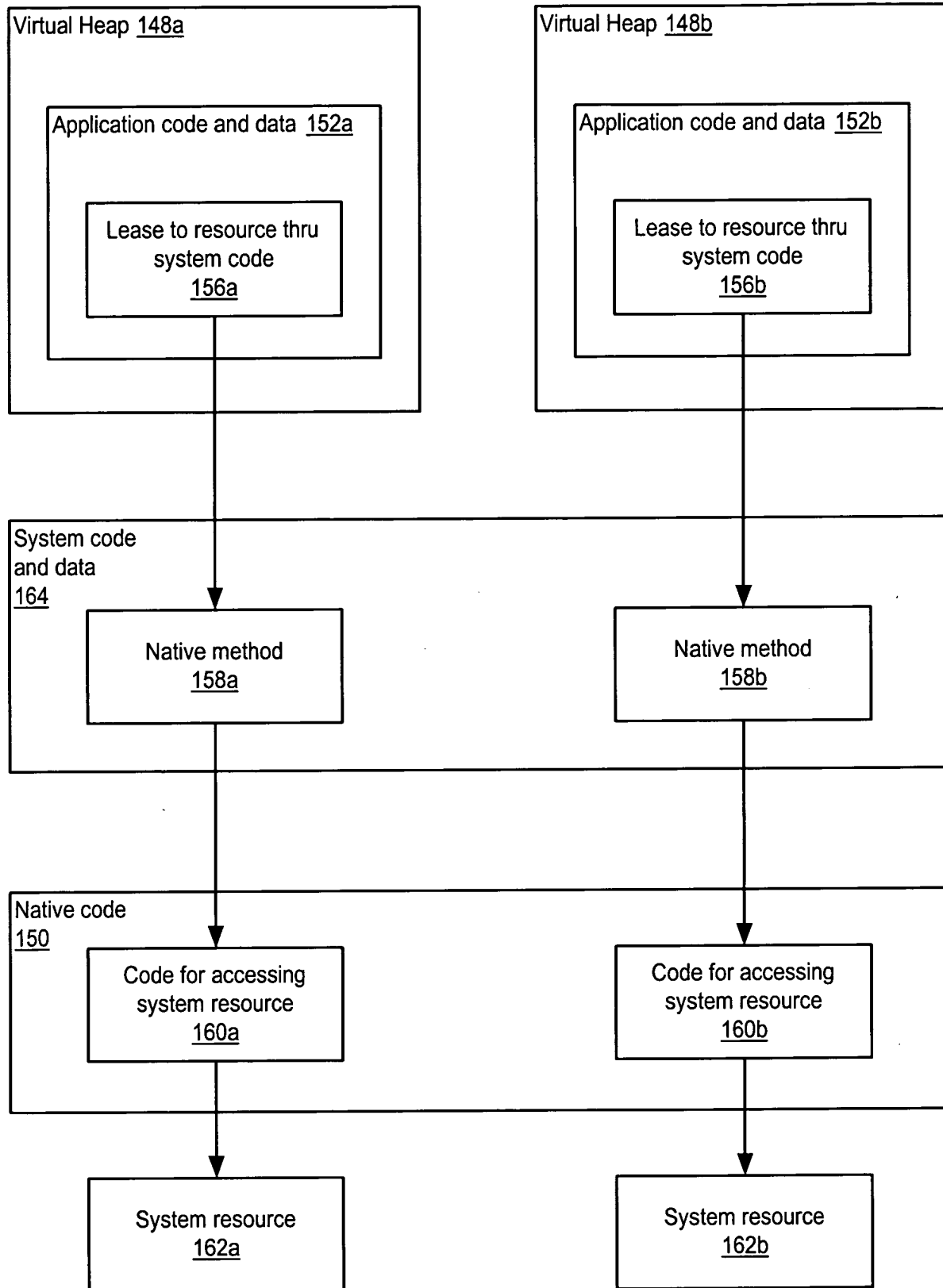


Figure 1f

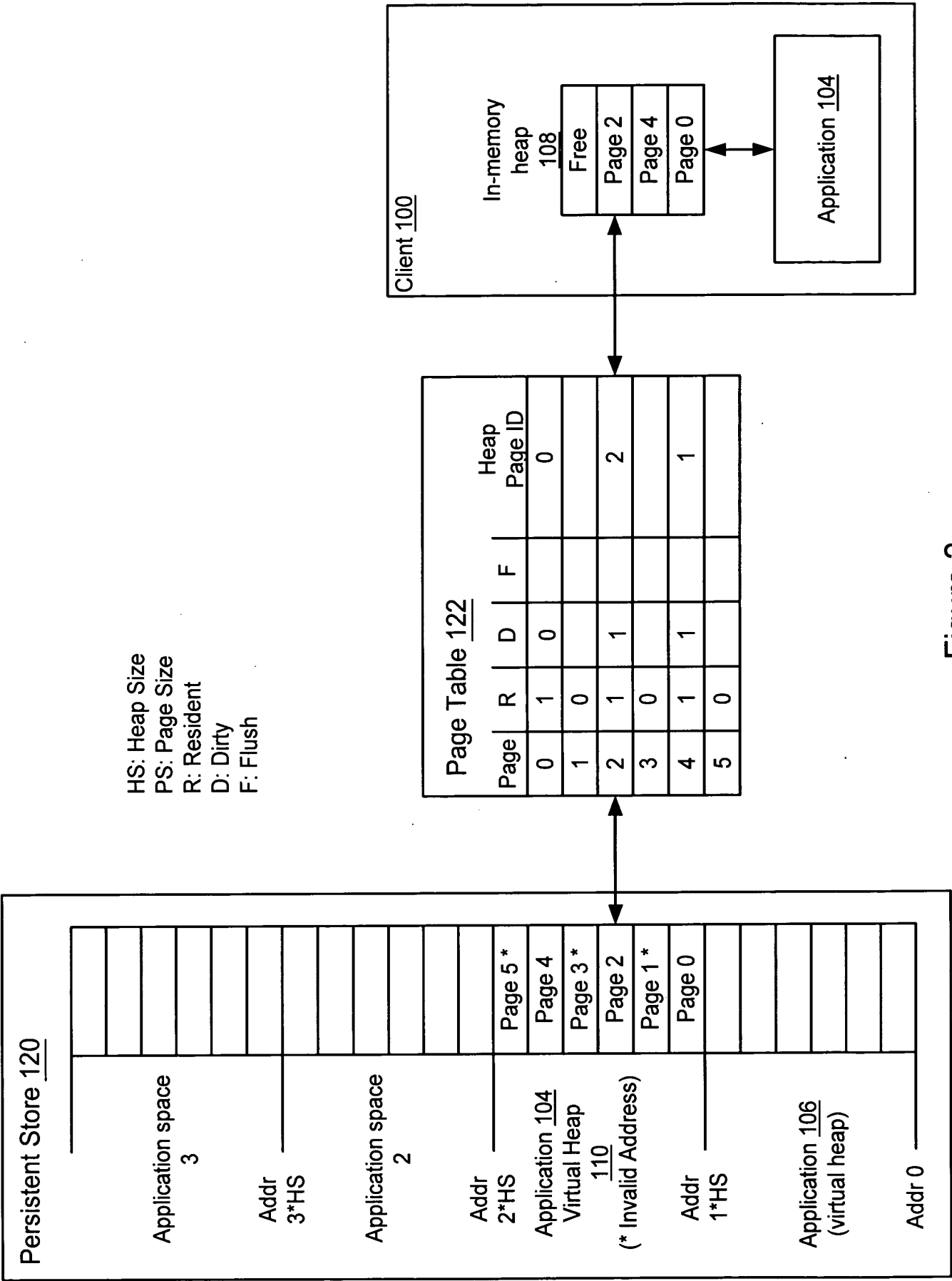


Figure 2

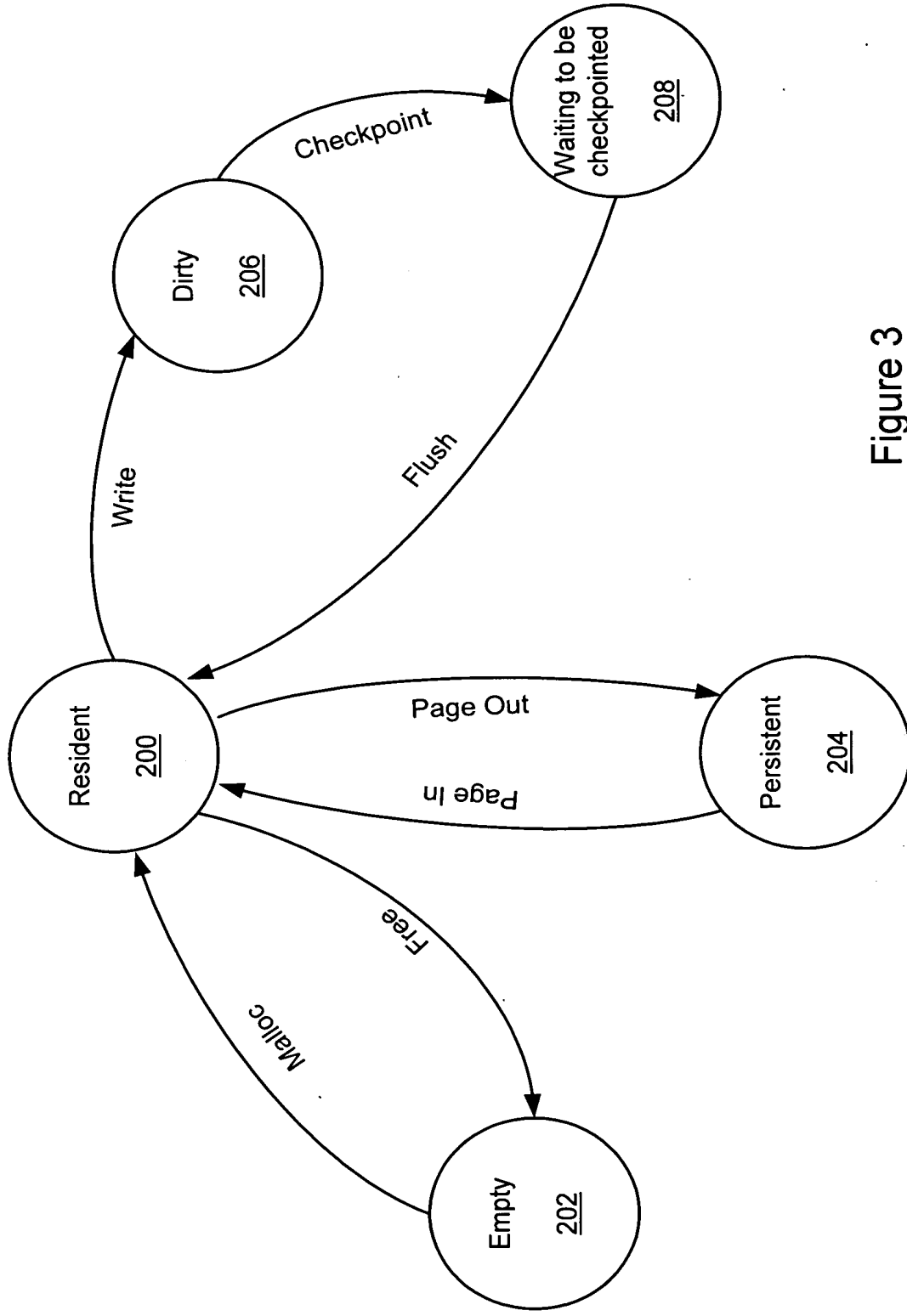


Figure 3

00000000 00000000 00000000 00000000

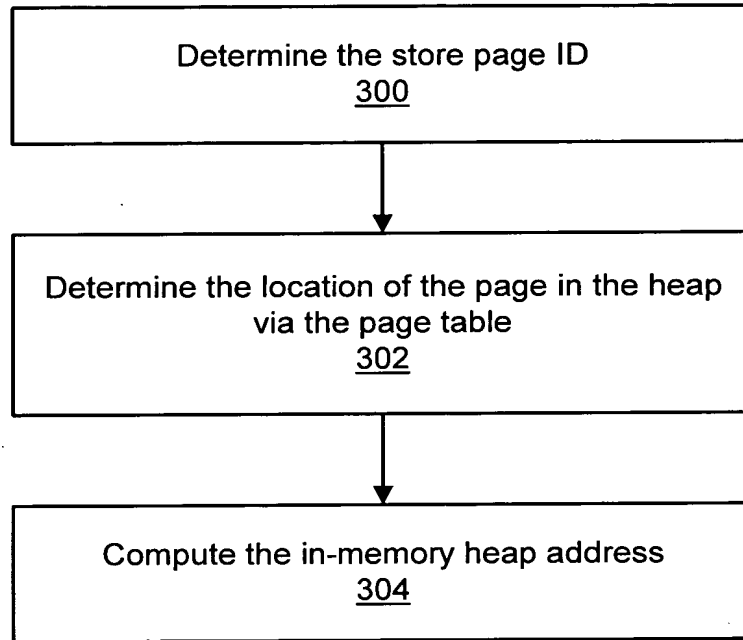


Figure 4

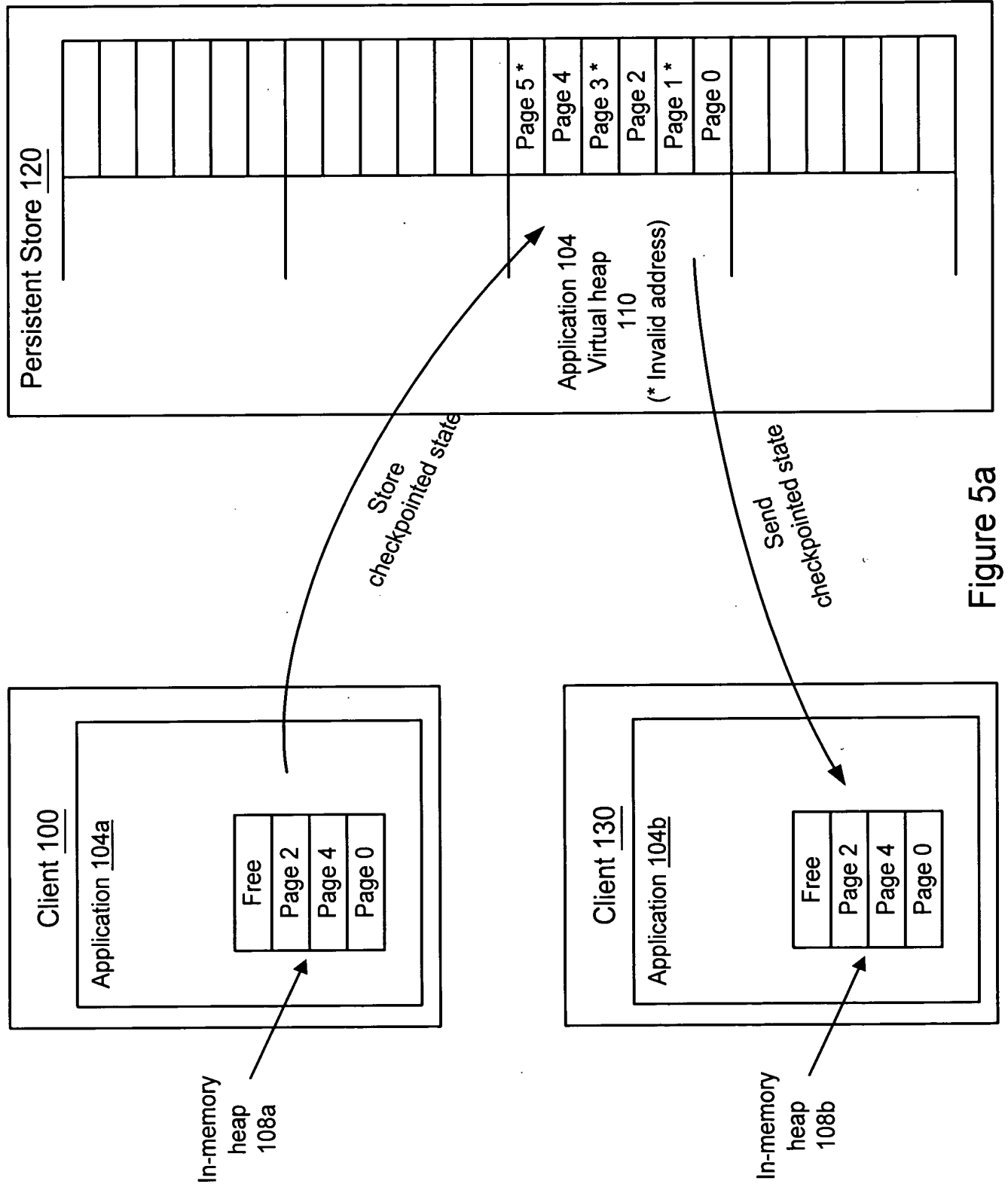


Figure 5a

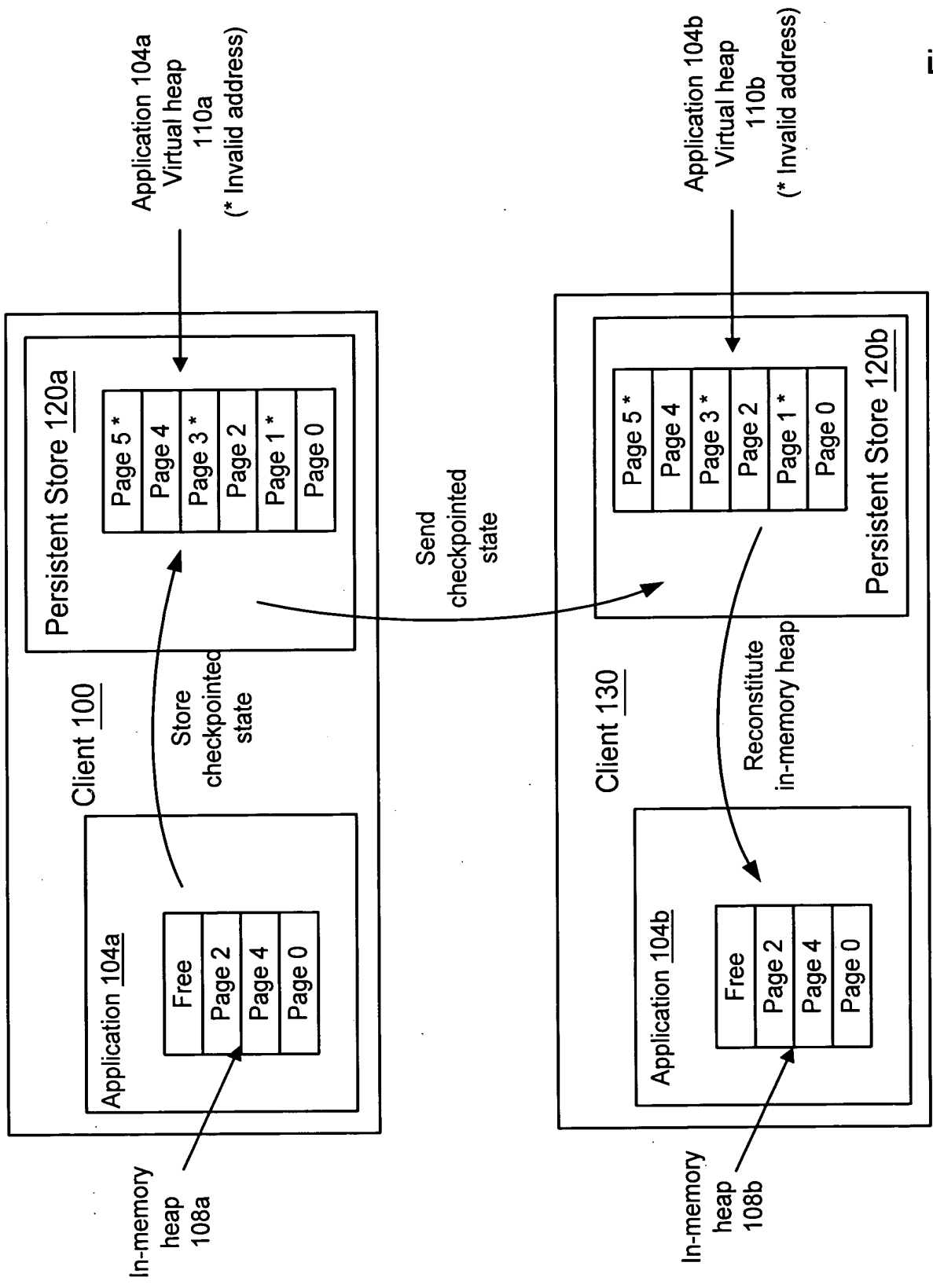


Figure 5b

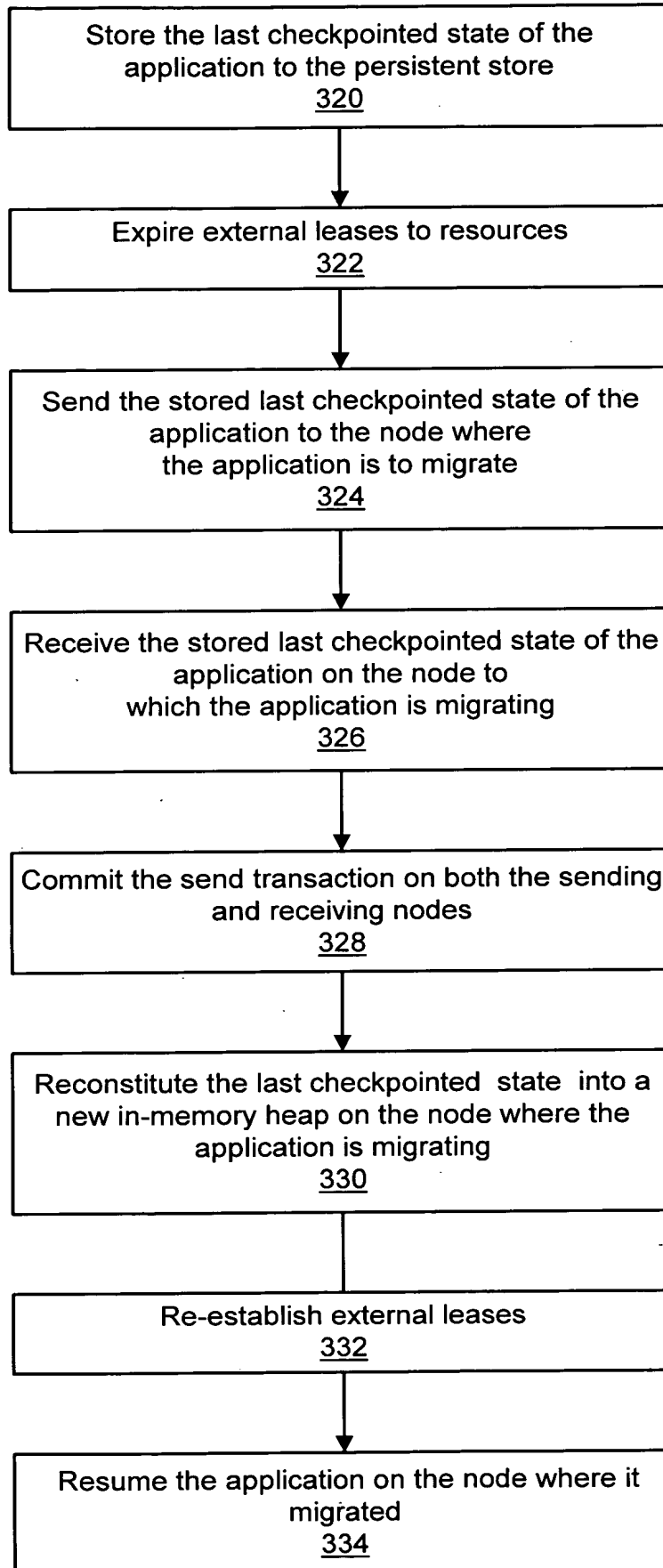


Figure 6

000000-000000-000000

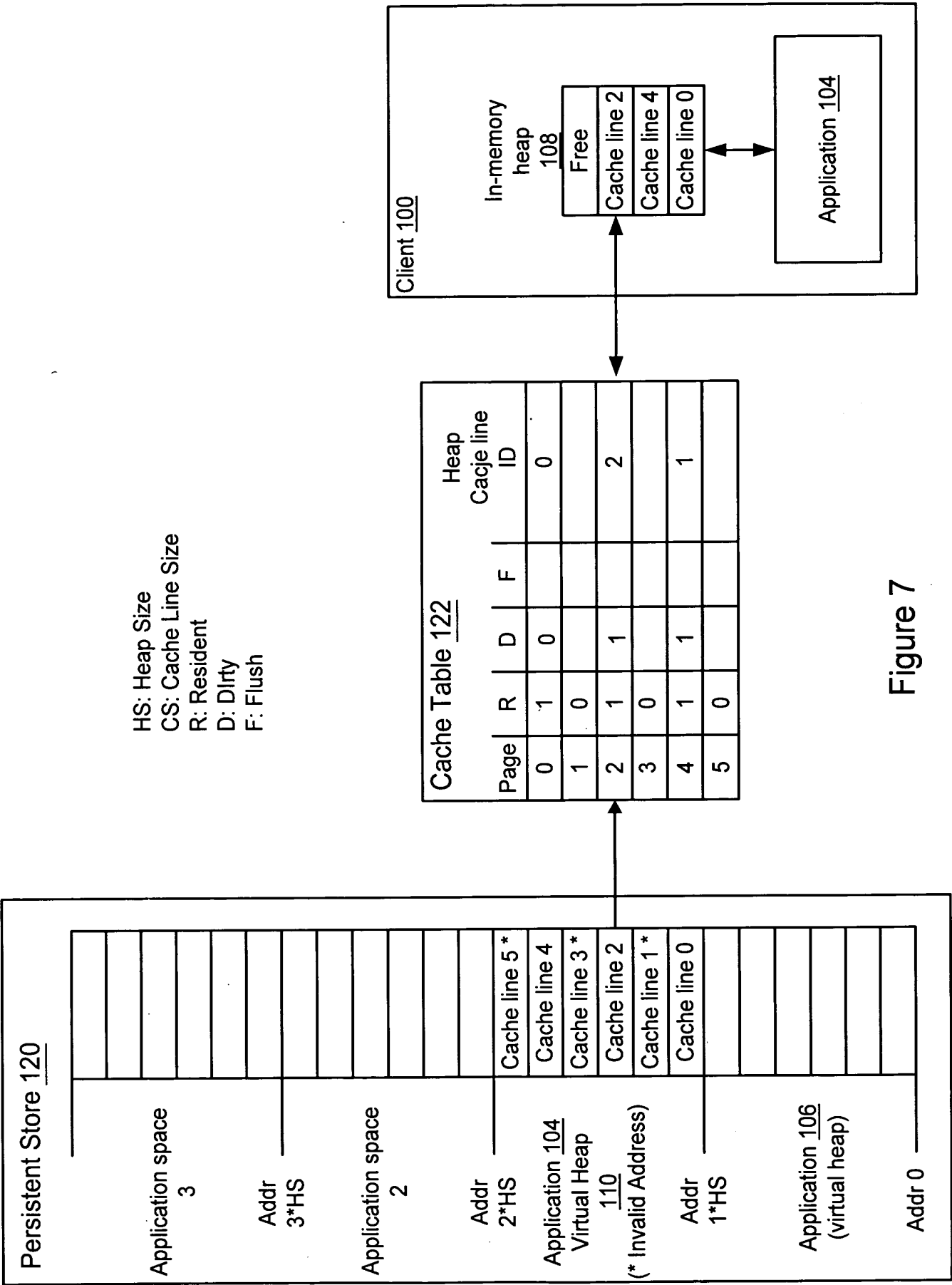


Figure 7

002090-82028560

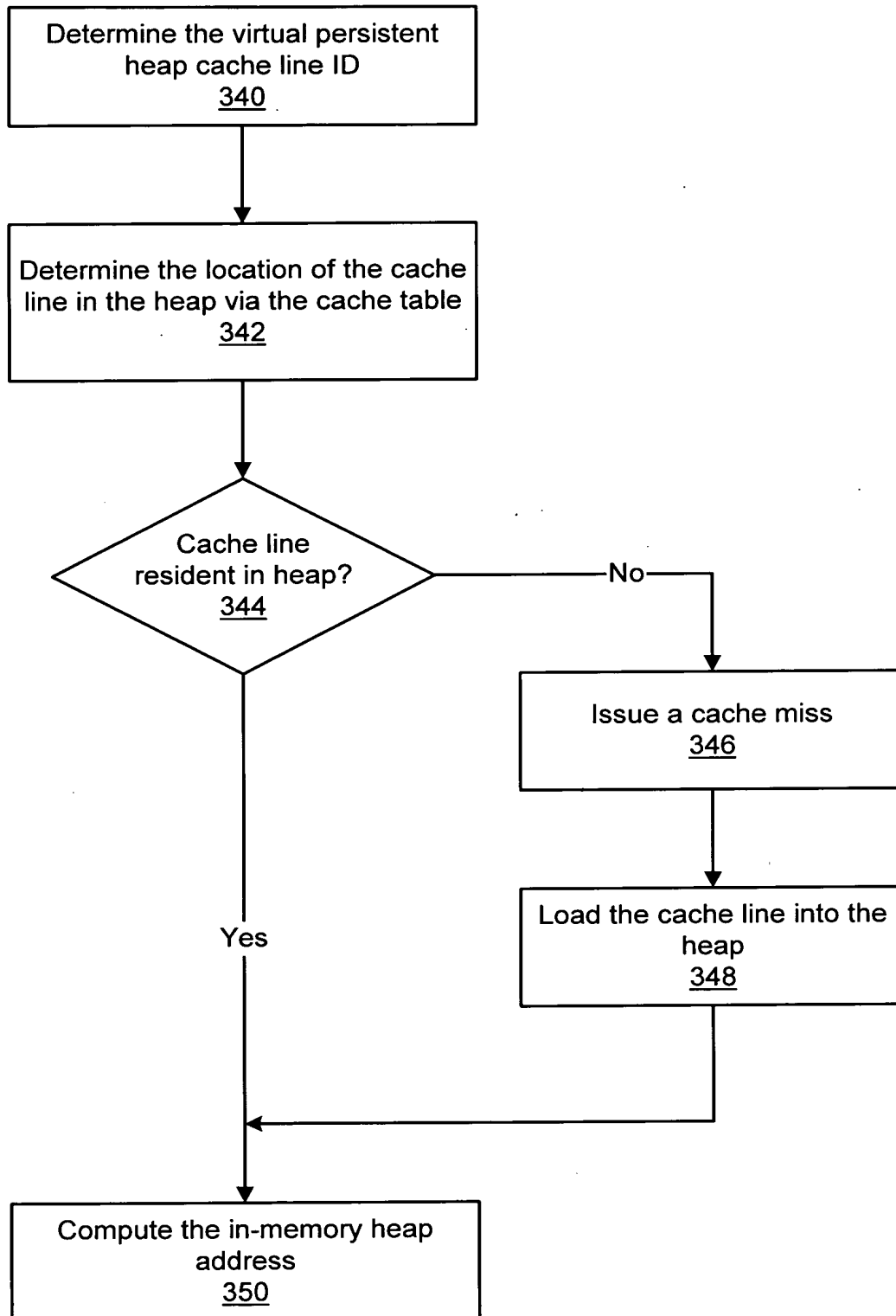


Figure 8

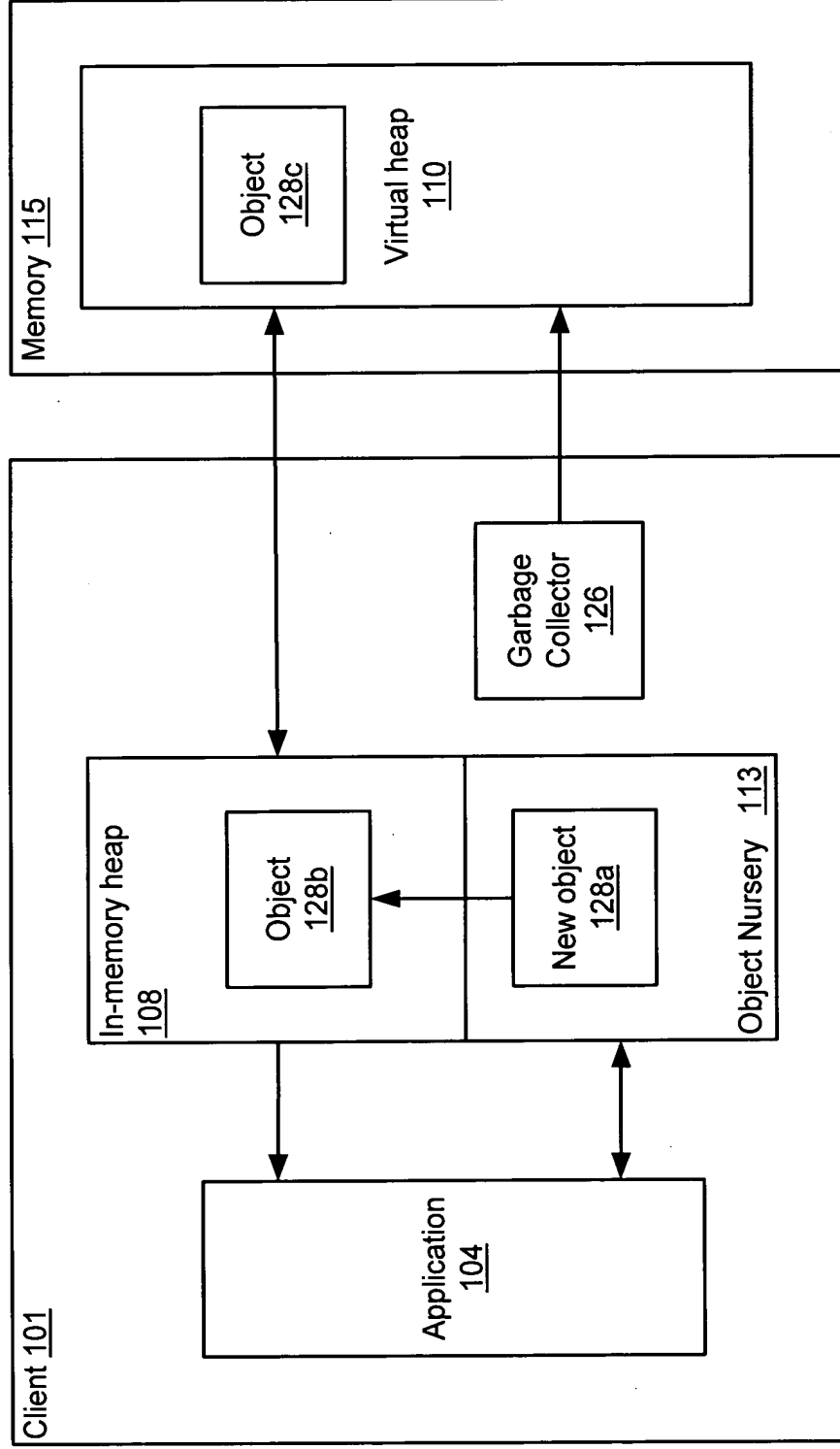


Figure 9

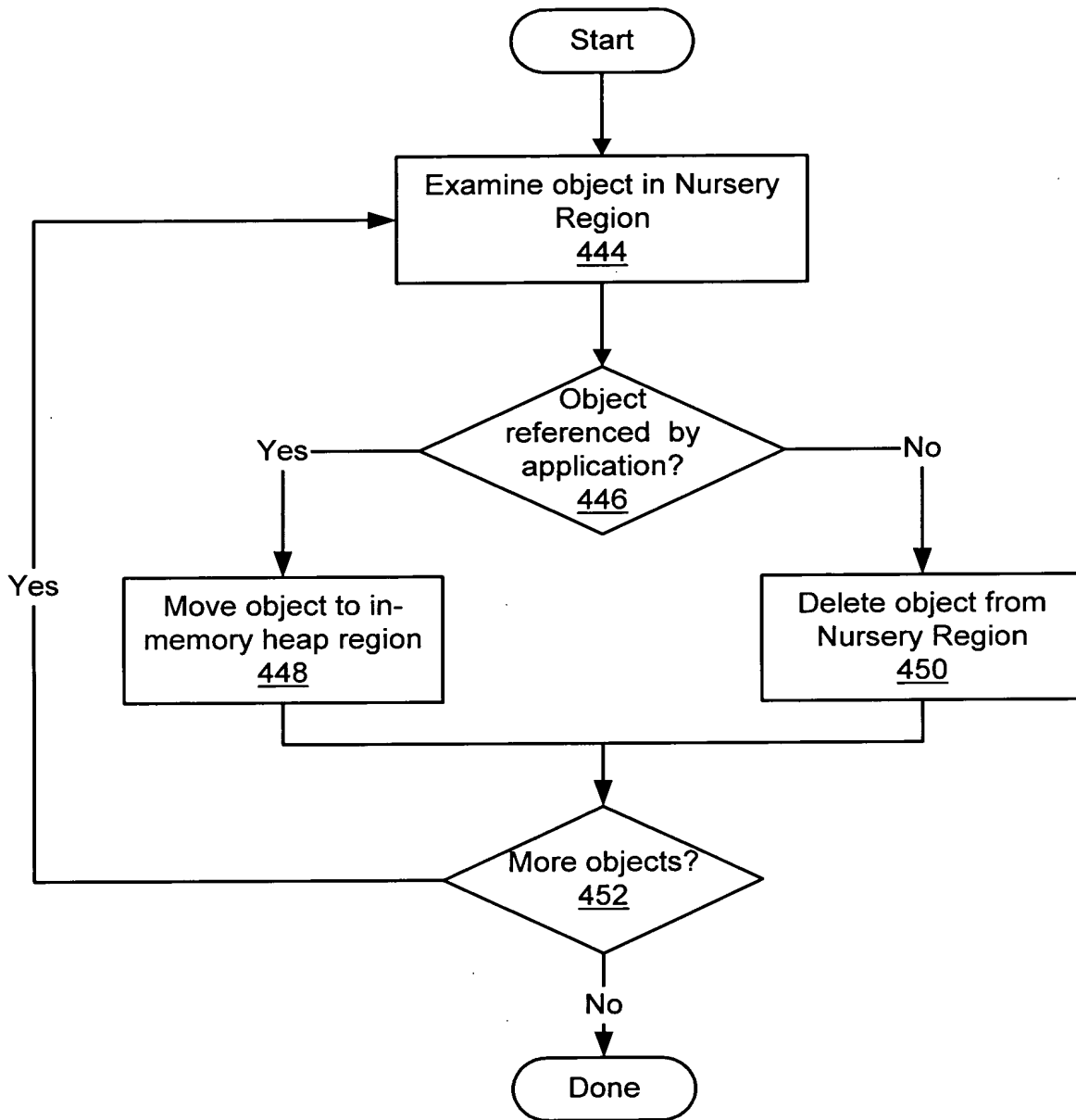


Figure 10b

```

graph TD
    406([Garbage collect one or more working sets of the virtual heap  
406]) --> 418[Flush in-memory heap  
418]
    418 --> 420[Examine code and data (objects) in the one or more working sets  
420]
    420 --> 422[Mark unused objects in the one or more working sets for removal  
422]
    422 --> 424[Remove marked code and data (objects) in the one or more working sets  
424]
    424 --> 426[Compact the one or more working sets  
426]
    426 --> Done([Done])

```

Figure. 10c

```

graph TD
    500[Open Store Heap  
500] --> 502[Read one or more cache  
lines from the store heap  
502]
    502 --> 504[Cache the one or more  
cache lines to the cache  
heap  
504]
    504 --> 506[Commit transaction  
506]
    506 --> 530[Close Store Heap  
530]

```

```

graph TD
    500[Open Store Heap  
500] --> 510[Read one or more cache  
lines from the cache heap  
510]
    510 --> 512[Write the one or more cache  
lines to the store heap  
512]
    512 --> 514[Commit transaction  
514]
    514 --> 530[Close Store Heap  
530]

```

```

graph TD
    A[Open Store Heap  
500] --> B[Delete one or more cache  
lines from the store heap  
520]
    B --> C[Commit transaction  
522]
    C --> D[Close Store Heap  
530]

```

Figure 11c